Baltimore City Health Department
Ryan White CARE Act, Title I
Quality Improvement Program (QIP)

SERVICE CATEGORY:
PRIMARY MEDICAL CARE: CO-MORBIDITY
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Introduction

The Baltimore City Health Department (BCHD) Title I Quality Improvement Program (QIP) began in FY 2001, the purpose of which is to ensure that people living with HIV/AIDS (PLWH/A) in the Greater Baltimore Eligible Metropolitan Area (EMA) have access to quality care and services consistent with the Ryan White CARE Act. The FY 2001 QIP initiative focused on adult/adolescent primary care and case management services, while FY 2002 focused on medically related care and care coordination. The following service categories were reviewed during FY 2002:

- Substance abuse treatment services
- Mental health services: adults
- Mental health services: children and adolescents
- Case management adherence
- Client advocacy
- Primary Care: Co-morbidity

To assess the degree to which the Standards of Care as established by the Greater Baltimore HIV Health Services Planning Council (Planning Council) were adhered to across the EMA, baseline data was gathered and analyzed from all Title I vendors in the EMA funded to provide the services listed above. Information presented in this report focuses exclusively on Primary Care: Co-Morbidity Services.

The Co-morbidity service category is a sub-category of the Primary Medical Care service category and was first funded in 1999. Ratified in January 2001,this service category was established by the Planning Council to address the high incidence of homelessness, mental illness and substance abuse among persons with HIV/AIDS in the EMA. "These co-morbid factors impact on the health care delivery system through missed appointments and failure to adhere to medical treatments." The goal of these services is to "improve quality of care by providing integrated care." Co-morbidity services were intended to be provided differently from the norm of service delivery, which as described in the Standards, "treat each co-morbid condition independently…This project is an effort to address the barriers that co-morbidity creates for clients in seeking and remaining in medical treatment and securing the other health and support services that are essential to the well being of the client."[1]

The Standards of Care for Co-morbidity Services are not as detailed as the other service category standards, but they do specify client eligibility, location, and minimal requirements of the service model of integrated care. The minimal components of the service model delineated in the Standards include:

- On-site availability of HIV primary care, substance abuse treatment, mental health services and/or homeless services.
- Integration of care.
- Coordination of care, facilitated by a Professional Case Manager or other designated, qualified care coordinator.
- Outreach services, which should include services to HIV-infected individuals not currently receiving medical services as well as outreach to clients who are lost to follow-up.[2]

The Standards also specify that Co-morbidity providers "must establish a service program as described in the "Summary of Special Project on Adherence" and that the Standards for the primary medical care, mental health and substance abuse be used as service guidance. A specific co-morbidity reporting form for reporting client progress would be used and "data from these forms will be used to evaluate the model for effectiveness." The Standards specify that the service category would be funded for one year, and "if this

[1] Greater Baltimore Health Services Planning Council (2001, January), "Standards of Care", Section 25, page 1. Accessed from http://www.baltimorepc.org.

[2] Ibid, p. 3.

model proves successful, in future years special consideration may be given for program [sic] that offer this integrated care model."

Section 1. Methodology

Process

The one to three day QIP reviews were conducted at 100% of the five agencies providing Primary Care: Co-morbidity services. Data was collected through three avenues: 1) consumer surveys; 2) agency interview; and 3) client chart abstraction.

Consumer Survey: The Consumer Survey was designed to be completed by the clients. As needed, the Consumer Interviewer completed the tool while posing the questions to the client. The tool focused on three primary areas: a) general information about the consumer; b) services received; and c) level of involvement with the agency. The questions emphasized the type of services provided and client's knowledge about their care rather than on their satisfaction with services. Information related to consumer surveys is summarized in a separate report.

Agency Interview: Through the use of a structured interview, each agency was interviewed prior to their QIP review. The interview discussed the agency's Co-morbidity services, their methodology for developing and delivering the services, experiences, and compliance with the EMA's Standards of Care. No additional verification of information was undertaken. (See Appendix C for a copy of the agency interview.) This data collection process differs from the survey method used for the other five service categories where the agencies completed a written survey. The interview process was used for Co-morbidity services in order to obtain more comprehensive information on the agency's service delivery design and methodology.

Client Chart Abstraction: The chart abstraction tool was designed to assess the vendors' adherence to the EMA's Standards of Care. The tool, which was reviewed by BCHD and the Planning Council, was developed by a content expert with demonstrated expertise in the area being reviewed. The tool contained items specifically relating to the Standards of Care, client demographics and descriptive items relating to service provision. (See Appendix B for a copy of the client chart abstraction tool.)

Time Frame

The review period focused on services provided in FY 2001 (March 1, 2001 to February 28, 2002) for Title I clients. Based on the number of clients reported receiving Co-morbidity services during FY 2001, vendors were instructed to randomly select a specific number of patient records who received services in the defined time frame. Recommendations for obtaining a random sample were provided. In addition, vendors were instructed to include approximately ten records that represent services initiated in FY 2001 and three to five closed records. From the vendor-selected records, the QIP reviewers selected a specified, smaller number of records to review for adherence to the Standards. For each client record reviewed, one chart abstraction instrument was completed.

The individuals conducting the QIP reviews had expertise in the service category being reviewed and were instrumental in the design of the tools. All completed client chart instruments were reviewed for completeness and consistency and responses were entered into a customized database for subsequent analysis.

Sample

A total of 433 clients were reported to have received Co-morbidity services during FY 2001. A total of 139 client records were reviewed at the five agencies, **representing a total of 32.1% of all reported Title I clients.** The number of records reviewed per site ranged from 18 to 40, with an average of 27.8 records reviewed per site (Table 1). The proportion of agency clients reviewed ranged from 23% to 60% of all reported Title I clients (Table 2).

Table 1. Co-morbidity agencies reviewed, dates of review and number of Co-morbidity Services client records reviewed

Agency Name	Dates of review	Number of records reviewed during QIP	% of QIP total
Baltimore County Health Department	October 30 – November 1, 2002	40	28.7%
Chase Brexton Health Services	October 7 – 9, 2002	18	12.9%
Health Care for the Homeless	November 20-21, 2002	33	23.7%
People's Community Health Center	October 3, 2003	24	17.2%
University of Maryland	December 4 – 6 , 2002	24	17.2%
Total		**139**	**100%**[4]
Average		27.8	20%
Minimum		**18**	**12.9%**
Maximum		40	28.7%

Table 2. Number of Co-morbidity clients and proportion of Co-morbidity client records reviewed

Agency Name	Reported # of Title I clients receiving Co-morbdiity services	% of EMA total	% of agency's clients reviewed by QIP
Baltimore County Health Department	135	31.1%	29.6%
Chase Brexton Health Services	63	14.5%	28.5%
Health Care for the Homeless	91	21%	36.2%
People's Community Health Center	40	9.2%	60%
University of Maryland	104	24%	23%
Total	**433**	**100%**	**32.1%**
Average	86.6	20%	35.4%
Minimum	**40**	**9.2%**	**23%**
Maximum	135	31.1%	60%

[4] Note on all tables: Due to rounding, the total may not be equal to one hundred percent.

Section 2. Client Demographics

A total of 139 client records were reviewed. Demographics of these clients are reported in this section.

Gender and Age

Of the population sampled, two-thirds (66.9%) of the clients were male, 31.6% female, and 1.4% transgender (Table 3). The mean age of clients is 43.7 years, with men being older than women (Table 4).

Table 3. Gender distribution

Gender	n=139
Female	44 (31.6%)
Male	93 (66.9%)
Transgender	2 (1.4%)

Table 4. Age distribution

Age	n=139
13 – 19 years	0 (0%)
20 –29 years	8 (5.8%)
30 – 39 years	33 (23.7%)
40 – 49 years	64 (46%)
50 – 59 years	30 (21.6%)
60 – 69 years	4 (2.9%)
›70 years	0 (0%)
Mean age (n=139) Min 21.2 years Max 64.0 years	43.7 years
Mean age Male (n=93) Min 21.5 years Max 64.0 years	44.3 years
Mean age Female (n=44) Min 21.2 years Max 63.5 years	42.6 years
Mean age Transgender (n=2)	41.4 years

Race/Ethnicity

Eighty-five (85.6%) of the clients were African-American, and 8.6% were White. Race/ethnicity was not documented in 4.3% of the reviewed client records (Table 5). Of the women, 90.9% were African-American, compared to 82.8% of the men (Table 6).

Table 5. Race/ethnicity distribution

Race/Ethnicity	n=139
African-American	119 (85.6%)
White	12 (8.6%)
Other	1 (0.7%)
American Indian/Alaska Native	0 (0%)
Hispanic	1 (0.7%)
Asian/Pacific Islander	0 (0%)
Caribbean	0 (0%)
Not documented	6 (4.3%)

Table 6. Race/ethnicity distribution by gender

Race/Ethnicity	Male	Female	Transgender	Total
African-American	77 (82.8%)	40 (90.9%)	2 (100%)	**119 (85.6%)**
White	9 (9.7%)	3 (6.8%)	—	**12 (8.6%)**
Hispanic	1 (1.1%)	—	—	**1 (0.7%)**
American Indian/Alaska Native	—	—	—	**—**
Asian/Pacific Islander	—	—	—	**—**
Caribbean	—	—	—	**—**
Other	1 (1.1%)	—	—	**1 (0.7%)**
Not documented/Missing	5 (5.4%)	1 (2.3%)	—	**6 (4.3%)**
Total	**93 (100%)**	**44 (100%)**	**2 (100%)**	**139 (100%)**

Note: The categories Not documented and Missing/not abstracted were combined in this table.

Risk Factor

Similar to the HIV/AIDS prevalence in Baltimore, injection drug use (IDU) was noted as the primary risk factor in 36.7% of the client records reviewed. Heterosexual contact was noted as the second most frequent risk factor (25.2%) (Table 7). Among men, IDU was the most common risk factor reported (44.1%), followed by men who have sex with men (19.4%). Among women, heterosexual contact accounted for almost half (47.7%) and IDU accounted for 23%. Gender and risk factor data were not documented or missing for 16 clients (12%).

Table 7. Risk factor distribution

Risk Factor	n =139
IDU	51 (36.7%)
Heterosexual	35 (25.2%)
MSM	20 (14.4%)
IDU and Heterosexual	11 (7.9%)
Undetermined/Unknown	3 (2.2%)
MSM and IDU	2 (1.4%)
Hemophilia/coagulation	0 (0%)
Perinatal transmission	0 (0%)
Other	1 (0.7%)
Missing/Not abstracted	1 (0.7%)
Not documented	15 (10.8%)

Table 8. Risk factor distribution by gender

Risk Factor	Male	Female	Transgender	Total
Hemophilia/coagulation	—	—	—	—
IDU	41 (44.1%)	10 (22.7%)	—	**51 (36.7%)**
Heterosexual	14 (15.1%)	21 (47.7%)	—	**35 (25.2%)**
MSM	18 (19.4%)	--	2 (100%)	**20 (14.4%)**
IDU and Heterosexual	4 (4.3%)	7 (15.9%)	—	**11 (7.9%)**
Undetermined/Unknown	2 (2.2%)	1 (2.3%)	—	**3 (2.2%)**
MSM and IDU	2 (2.2%)	—	—	**2 (1.4%)**
Perinatal transmission	—	—	—	**—**
Other	1 (1.1%)	—	—	**1 (0.7%)**
Not documented/Missing	11 (11.9%)	5 (11.4%)	—	**16 (11.5%)**
Total	**93 (100%)**	**44 (100%)**	**2 (100%)**	**139 (100%)**

Note: The categories Not documented and Missing/not abstracted were combined in this table.

Co-Morbid Conditions

Three co-morbid conditions are considered eligibility criteria for receipt of co-morbidity services: mental health disorder, substance abuse, and homelessness. Of those receiving mental health services as part of a co-morbidity program (n=54), **41% had a documented mental health disorder**. Of those, adjustment disorder with depressed mood (n=6), major depressive disorder (n=5) and polysubstance dependence (n=5) were the most frequently reported. DSM-IV codes were not documented in 59% of the medical records.

Of those receiving substance abuse services, **31% had a documented substance abuse addiction diagnosis**. The most frequent diagnoses were opioid dependence (n=8), cocaine dependence (n=7) and mood disorder NOS [not otherwise specified] (n=4). Other diagnoses included alcohol dependence or abuse, major depressive disorder and cocaine abuse. (See Appendix A for a further description of client diagnoses.)

Of the 139 client records reviewed, 41 **(29.5%) of the clients were identified as being homeless**. As indicated above in Table 1, 23.7% of the total number of client records reviewed were of patients receiving care at an agency serving primarily homeless clients.

Disease status and biological indicators

Of the population sampled, 55.4% had an HIV-infection, not AIDS diagnosis. Slightly over one third (36%) had an AIDS diagnosis. Disease status was not documented in 7.2% of the reviewed client records.

The mean CD4 value was 399.3/mm^3, with women having a higher mean CD4 value than men. CD4 values were not documented in 11% of the reviewed client records. Of the sample, 28% had CD4 values greater than 500 cells/ mm^3 with 48% having CD4 values between 200 and 500 cells/ mm^3. Eight percent (8%) had CD4 values less than 50 cells/ mm^3, indicating advanced disease progression and the highest risk for opportunistic infections. Viral loads were undetectable for 23% of the sample and almost one-quarter (24%) had viral loads greater than 55,000. Viral load values were not documented in 11% of reviewed client records and were missing/not abstracted for 1 (0.7%) of reviewed client records.

Slightly less than one-half (46%) of the population sampled were documented as being on HAART at any time during the review period. Treatment status was not documented in 3.6% of reviewed client records (Table 9).

Table 9. Disease status, CD4 and viral load values and treatment status

Disease Status	n=139
CDC-Defined AIDS	50 (36%)
HIV-infection	77 (55.4%)
Deceased	2 (1.4%)
Not documented	10 (7.2%)
CD4 Values	**n=124**
Mean CD4 (n=124)	399.3/mm^3
Mean CD4 Male (n=80)	382.5/mm^3
Mean CD4 Female (n=42)	439.6/mm^3
Mean CD4 Transgender (n=2)	630.0/mm^3
CD4 Distribution	**n=124**
‹50/mm^3	10 (8.1%)
50 – 199/mm^3	19 (15.3%)
200 – 499/mm^3	60 (48.4%)
› 500/mm^3	35 (28.2%)
CD4 values were not documented for 15 (11%) of all client records.	

Viral Load Distribution	n=123
Undetectable	28 (22.8%)
1 – 999 c/mL	10 (8.1%)
1,000 – 6,999 c/mL	19 (15.4%)
7,000 -19,999 c/mL	23 (18.7%)
20,000 – 54,999 c/mL	13 (10.6%)
› 55,000 c/mL	30 (24.4%)
Viral load values were not documented for 15 (11%) and missing/not abstracted for 1 (0.7%) of all client records.	
Treatment Status	**n=139**
% documented on HAART at any time during review period	46%
Treatment status was not documented for 5 (3.6%) of all client records.	

Changes in biological indicators

In an effort to examine clinical and treatment outcomes, laboratory values (CD4 and viral load) and treatment information (HAART) were abstracted at two points during the review period. Of the 139 client records reviewed, two CD4 values were documented in 87 (62.5%) of the reviewed client records.

Clients for whom there were two CD4 values (n=87) had a mean CD4 value of 420.6/ mm^3 at the first entry and a mean of 435.0/ mm^3 at the second entry, representing an increase of 3.4%. There was a mean of 189 days between these two documented CD4 values. Clients who were documented **on HAART** at any time during the review period and had two documented CD4 values (n=51) had a mean mean CD4 value of 382.4/ mm^3 at the first entry and a mean of 418.1/ mm^3 at the second entry, representing an increase of 9.3%. There was a mean of 199 days between these two documented CD4 values. Clients who were documented **not on HAART** at any time during the review period and had two documented CD4 values (n=51) had a mean CD4 value of 474.7/ mm^3 at the first entry and a mean of 459.0/ mm^3 at the second entry, representing a decrease of 3.3%. There was a mean of 174 days between these two documented CD4 values.

Table 10. Mean CD4 changes for clients with two CD4 values

CD4 changes	1st mean CD4 value	2nd mean CD4 value	Mean change
All clients with 2 CD4 values (n=87)	420.6/mm^3	435.0/m m^3	+3.4%
Clients on HAART (n=51)	382.4/mm^3	418.1/m m^3	+9.3%
Clients not on HAART (n=36)	474.7/mm^3	459.0/m m^3	-3.3%

Insurance Status

Insurance coverage was documented at the beginning or first entry of the review period and at the end or the last entry of the review period. At the first entry, 41% of clients had Medicaid insurance. Twenty-nine percent (28.7%) had no insurance at the first entry, and of these 40 clients, 22 (55%) had obtained health insurance by the end of the review period—obtaining Medicaid or one of the state-operated pharmacy programs (MADAP or MPAP). Insurance status was not documented for 9.3% of clients (Table 11).

Table 11. Insurance status

Insurance Status	First Entry
Medicaid	57
No insurance	40
MPAP	18
MADAP	7
Medicare	7
Private/Commercial	5
Veteran's Administration	1
MPC	—
Not documented	13

Note: Multiple responses documented.

Residence

The most frequent ZIP code of reported client residence is 21218, followed by 21217. In 2.2% of client records, ZIP code was not documented; however, Baltimore City was noted as the city of residence.

Table 12. Residence

ZIP Code	# (% of total)
21218	16 (11.5%)
21217	10 (7.2%)
21201	9 (6.5%)
21202	9 (6.5%)
21213	9 (6.5%)
21211	7 (5%)
21212	7 (5%)
21230	7 (5%)
21215	6 (4.3%)
21216	6 (4.3%)
21205	5 (3.6%)
21223	5 (3.6%)
21225	4 (2.9%)
21229	4 (2.9%)
21231	4 (2.9%)
21206	3 (2.2%)
21207	3 (2.2%)
21224	3 (2.2%)
Baltimore, ZIP Code not documented	3 (2.2%)
Residence not documented in chart	3 (2.2%)
21208	2 (1.4%)
21013	1 (0.7%)
21040	1 (0.7%)
21061	1 (0.7%)
21112	1 (0.7%)
21117	1 (0.7%)
21203	1 (0.7%)
21210	1 (0.7%)
21214	1 (0.7%)
21220	1 (0.7%)
21222	1 (0.7%)
21226	1 (0.7%)
21227	1 (0.7%)
21239	1 (0.7%)
Missing; not abstracted	1 (0.7%)
Total	**139 (100%)**

Comparison with Baltimore City EMA prevalence data

In comparison with reported Baltimore City EMA HIV/AIDS prevalence[5], the sample of client records reviewed is slightly less African-American and White and has a greater proportion of males than females. Also, the client records reviewed represent an older population than the HIV/AIDS prevalence (Table 13).

Table 13. Demographic comparison of client records reviewed with Baltimore City EMA prevalence

Population	Reviewed client records	Baltimore City HIV/AIDS prevalance
African-American	85.6%	89.0%
White	8.6%	9.9%
Adult Male (>13 years)	66.9%	62.7%
Adult Female (>13 years)	31.6%	37.3%
Ages 30 – 39 years	23.7%	30.0%
Ages 40 – 49 years	46.0%	42.0%
Ages 50 – 59 years	21.6%	15.6%

HRSA reporting categories

Client demographics by HRSA reporting categories are reported below (Table 14).

Table 14. Proportion of client records reviewed by HRSA reporting category

Population	Reviewed client records
0 – 12 months	0%
1 – 12 years	0%
13 – 24 years	2.1%
Women >= 25 years	29.4%
African-American/Female	28.7%
African-American/Male	55.3%

[5] Baltimore City Health Department, HIV Surveillance Program, "Baltimore City HIV/AIDS Epidemiological Profile," Third Quarter 2002. Prevalence data on September 30, 2001 as reported through September 30, 2002.

Section 3. Agency and client-level assessment of compliance with EMA standards of care

This section summarizes the findings from both the agency interviews and the client record reviews. Findings are presented according to the Standards of Care.

A. Target Group and Goal of Co-morbidity Services

Standard I

Standard I delineates the target group for co-morbidity services and includes hard-to-engage clients with a history of substance abuse, mental health illness and/or homelessness. All five sites (100%) reported that their Co-morbidity services specifically target these populations.

Standard II

The overall goal of the project is to improve the quality of care for the targeted population by providing integrated care (Standard II). All agencies reported a focus on maintaining clients in care over time through the provision of intensive services. A variety of benefits to the agency and clients were reported by the agencies and include:

- Less provider time is wasted because patients are showing up for appointments (1 response).
- Staffing allows for 1:1 interaction and use of more intensive strategies, e.g. home visits (1 response).
- Patients are being retained in care over time (1 response).
- Through the "one-stop shopping model" a seamless system is created and the number of places patients have to go for service are decreased. This allows for a more holistic approach as multiple needs can be met by one agency. (2 responses).

B. Client Eligibility

Standard IV[7]

Standards IV.a & IV.b specify that only non-Medicaid eligible individuals and those with co-morbidities of substance abuse, chronic mental illness and/or homelessness are eligible for co-morbid services.

Based on the information reported from the five agencies, their defined eligibility criteria varied slightly. All sites (100%) reported requiring documentation of HIV status. Two of the sites (40%) reported offering co-morbidity services for clients who are eligible for Medicaid and two others do not (Standard IV.a). The remaining site (20%) was unclear whether or not Medicaid was an established eligibility criterion for their facility. Four of the five sites (80%) listed a mental health diagnosis as an eligibility criterion while three sites (60%) identified substance abuse as an eligibility criterion (Standard IV.b). One site (20%) identified homelessness as a criterion and another site (20%) required the current enrollment in the HIV program.

Data extracted from the client records indicate that 83% of the clients met the reviewed agency's eligibility criteria. Information was not provided in 17% of the client records (Table 15).

[7] Standard III focuses solely on the length of the project and the source of funds and provides no information about how services should be provided.

Table 15. Documented proportion of clients meeting agency's eligibility criteria for Co-morbidity services

	#/%
Meets agency's eligibility criteria	115 (83%)
Does not meet agency's eligibility criteria	1 (<1%)
Not documented in client record	23 (17%)
Total	**139 (100%)**

C. Referral for Services

Review of the client records indicate that formal enrollment processes are not established at the sites. Only 75 of the 139 client records (54%) documented an actual enrollment date into co-morbidity services.

Agencies reported that clients were often referred for co-morbidity services for four primary reasons: 1) difficulty adhering to a treatment regimen (80%); 2) patients lost to follow-up (80%); 3) a significant number of missed medical appointments (60%); and 4) presence of a co-morbid condition (60%). Other reasons included a low psychosocial assessment score or patient being identified as having complex needs and being very fragile. In comparison to the chart abstraction data, it was noted that 76% of the clients were referred because of the presence of a co-morbid condition while only 11% had missed a significant number of medical appointments (Table 16). Even fewer clients were reported to have been lost to follow-up (4%) or had difficulty adhering to the treatment regimen (4%).

Table 16. Documented reason for referral for co-morbidity services

Reason for referral	#/% of clients
Presence of co-morbid condition	105 (76%)
Significant number of medical appointments missed	15 (11%)
Client lost to follow-up and reengaged for services	5 (4%)
Difficulty adhering to treatment regimen	5 (4%)
Not documented	18 (13%)

Note: Multiple responses provided.

Internal referrals were reported to be used by 100% of the sites while only two sites (40%) reported accepting external referrals. Four of the five sites (80%) also reported accepting self-referrals. An internal referral was documented in 68% of the client records and self-referrals represented 2% (Table 17). More than one-quarter of the client records failed to document the source of the referral.

Table 17. Documented sources of referral

Source of referral	#/%
Internal referral	94 (68%)
Client/self-referral	3 (2%)
External referral	2 (1%)
Not documented	40 (29%)
Total	**139 (100%)**

The agencies reported that in some instances, clients are aware that they have been enrolled in co-morbid services. This generally occurs when a client is transitioned to a different case manager. Four of the five sites do not require clients to formally consent for co-morbid services.[8] Clients often remain enrolled in co-morbidity services for an extended period of time. Clients cease to be enrolled as "co-morbid" clients when the specific intervention needs have been resolved, when they become insured or have been lost to follow-up for greater than 12 months. One site indicated there was no specific criterion to disenroll clients. Of the four sites that have disenrolled clients, two indicated the clients were notified of the change in status and the remaining two sites did not.

[8] The fifth site did not respond to the question.

D. Location of Project

Standard V

Co-morbidity projects must be located in a substance abuse treatment center, mental health facility or homeless service facility which offers primary medical care (Standard V). Primary medical facilities are eligible for co-morbidity services if two or more services are offered to treat the targeted co-morbid conditions. All of the agencies (100%) met the requirements (Table 18).

Table 18. Type of Co-morbidity agency

Type	#/%
Community health center	2 (40%)
Health department	1 (20%)
Homeless service facility	1 (20%)
Mental health facility	1 (20%)

E. Service Model and Integration of Care

Standard VI

Standard VI.a requires that services be provided to on-site. While all sites offer primary medical care, only three sites (60%) specifically identified primary care as being part of co-morbidity services. Four of the five agencies (80%) provide mental health or substance abuse treatment. All of the agencies (100%) reported providing services on-site and 60% co-schedule appointments (Standard VI.a). Of the five sites, three (60%) also offer walk-in appointments. Of the client records reviewed, only 12% documented coordination of scheduling (Table 19).

Table 19. Documented coordination of scheduling

Coordination of patient scheduling	#/%
Yes	16 (12%)
No	33 (24%)
Not documented	88 (64%)
Missing/Not abstracted	2 (1%)
Total	**139 (100%)**

Standard VI.b-d states that care for clients must be integrated and that integration and care coordination must be explicitly described. The Standards of Care "strongly suggest" that regularly scheduled interdisciplinary team meetings be one mechanism for integrating care. The coordination of care may be facilitated by a professional case manager or other designated, qualified care coordinator.

The approach for integrating service identified and coordinating care were reported to vary across the agencies. In two agencies, case managers serve as the care coordinator (n=2) while a substance abuse counselor fulfills this role at a third agency (n=1) (Standard VI.d). In two other sites (40%) funds are used to support multiple positions instead of a single care coordinator. Review of the client records indicate that care was coordinated across the disciplines by a single identified staff person for 73% of the clients (Table 20). For these patients, social workers filled the role of care coordinator for 75% of these clients and substance abuse counselors for 25% of these clients.

Table 20. Documented coordination of patient care

Coordination of patient care	#/%
Yes	101 (73%)
No	36 (26%)
Not documented	1 (<1%)
Missing/Not abstracted	1 (<1%)
Total	**139 (100%)**

Regardless of the positions funded by the Title I contract, all agencies reported using interdisciplinary team meetings to coordinate care (Standard VI.b). The frequency of these meetings varies and range from weekly meetings (40%) to every other month (20%). The meetings are often scheduled by a person in a managerial position, such as the Program Coordinator or Mental Health Director. When meetings are held, 60% of the agencies reported that the meeting notes are placed in client records. The interdisciplinary teams members are reported to represent a wide range of disciplines, with the most frequent team members including case managers (80%), physicians (80%) and mental health therapists (80%).

While the agencies reported routinely using interdisciplinary team meetings to integrate services, almost none (3%) of the reviewed client records documented that the patient's case was reviewed at an interdisciplinary team meeting during the review period (Table 21).

The agencies reported that the most common mechanisms of service integration was through the use of shared client records (100%). The use of shared treatment plans or inclusion of team meeting notes in the client record were reported equally by 60% of the agencies. The use of inter-agency case conferences and service integration plans were reported by only one site (20%). Two of the five agencies (40%) reported having formal policies and procedures which address the requirements and methods for integration of care (Standard VI.c).

Client record abstraction data is consistent with agency reports of use of shared client records. A shared client record is the most frequent mechanism utilized to integrate care. Ninety-two percent (92%) of the reviewed client records documented integration of care across the services. Of these, 92% utilized a shared client record; 33% utilized a shared treatment plan; and 20% utilized a shared problem list. None (0%) of the client records contained a service integration plan (Table 21).

Table 21. Documented mechanisms for integration of care

Mechanism	#/% of patients
Shared chart	118 (92%)
Shared treatment plan	42 (33%)
Shared problem list	26 (20%)
Inter-agency meetings	4 (3%)
Interdisciplinary team meetings	4 (3%)
Patient/Family meetings	1 (<1%)
Service integration plan	0 (0%)

Note: Multiple responses noted.

F. Interventions to Address Patient Retention and Adherence

The rationale for Co-morbidity services was to assist clients whose co-morbidity presents additional challenges to being retained in care and adherent with treatment regiments. The agencies report using a variety of interventions to address these barriers. Tables 22 and 23 list the methods reported to be used by agencies to assist patient retention and adherence, respectively.

Table 22. Agency reported interventions to facilitate patient **retention** in services

Intervention	# /% of agencies
Home visits	3 (75%)
Provision of transportation for medically-related appointments	1 (25%)
Follow-up on no-show appointments within 48 hrs	1 (25%)
"Hand walk" clients to psychiatrist/substance abuse provider	1 (25%)
Provision of health education	1 (25%)
Outreach services	1 (25%)

Table 23. Agency reported interventions to facilitate patient **adherence** to treatment

Intervention	# /% of agencies
Integration with medication adherence program	2 (50%)
Pill counting	1 (25%)
Pharmacy checks to see if prescriptions have been filled	1 (25%)
Toxicology screens	1 (25%)
Use of pill boxes	1 (25%)
Directly observed therapy	1 (25%)

Review of client records documented a wider array of interventions employed which focused on four main areas: 1) co-morbidity specific interventions; 2) education and skills-building; 3) patient support; and 4) access interventions (Table 24). The largest number of documented interventions focused on referrals for mental health or substance abuse treatment to address the client's underlying co-morbidity. However, no single intervention to facilitate retention and/or adherence was provided to more than one-third of patients.

Table 24. Documented interventions to facilitate patient retention and adherence

Client co-morbidities interventions	# /% of patients
Referral for mental health/psychiatric assessment and/or treatment	46 (33%)
Referral for alcohol/substance use assessment and/or treatment	46 (33%)
Assistance with obtaining housing	4 (3%)

Client education and skills-building interventions	
Education about the consequences of non-adherence.	14 (10%)
Education about the relationship between antiretroviral therapy and viral load.	7 (5%)
Education about what to do if dose is missed and/or late.	5 (4%)
Education about the regimen and strategies to remember (e.g., daily calendar, pill boxes).	5 (4%)
Education about anticipated side effects and side effect management.	5 (4%)
General adherence education	4 (3%)
Identification of potential reasons for missed doses and strategies to address them.	3 (2%)
Education/skills-building around disclosure issues.	3 (2%)
Pharmacist consult/provider education	2 (1%)
Working with client to design dosing schedule that fits client routine/lifestyle.	1 (<1%)

Patient support interventions	
Telephone calls (or other contacts) to remind client of scheduled medical appointments.	9 (6%)
Home visit	4 (3%)
Filling patient's pill box on a regular basis.	3 (2%)
Linkage to peer advocate or mentor.	2 (1%)
Peer support group.	2 (1%)
Linkage to home nursing care for adherence-related visits.	1 (<1%)

Telephone calls (or other contacts) to see how client is doing on new/modified regimen.	1 (<1%)
Tracking of client medication refill dates and reminder calls to clients to refill prescription.	1 (<1%)
Provide pill box/not filled	1 (<1%)
Change/simplify regimen	1 (<1%)
Participation in a pill group	1 (<1%)
Treatment contract	1 (<1%)
Providing list of scheduled appointments	1 (<1%)

Access interventions	
Assistance in obtaining MADAP or other pharmaceutical assistance to assure continuity.	11 (8%)
Referrals for transportation, child care, or other services needed to attend appointments.	9 (6%)
Reminder calls prior to appointments and to identify specific barriers/needs.	8 (6%)
Reviewing patient's pharmacy records for adherence.	3 (2%)
Coordination with other family members' medical and treatment regimens.	2 (1%)
Improve access to pharmaceuticals (on-site refills, interim doses, etc.).	1 (<1%)

Outreach to patients

Standard VI.e requires outreach to be a part of Co-morbidity services and that these services should target clients who are lost to follow-up as well as HIV-infected individuals who are not currently receiving medical services.

Four of the five agencies (80%), reported that outreach services are provided as part of co-morbidity services (Standard VI.e). Of those agencies with an outreach component, 100% focus on maintaining clients in care over time and on re-engaging clients lost to follow-up. One agency (20%) reported utilizing the service to identify and link-HIV-positive clients to care who were not currently in service. Outreach strategies identified by the agencies include: use of peer advocates in conjunction with case managers for follow-up on no-show appointments (1 agency), provision of home or hospital visits (1 agency), "Well" checks conducted via phone (1 agency), outreach workers visit other agencies to facilitate linkages and referrals (1 agency), and the provision of street outreach (1).

Of the client records reviewed, 65% (n=90) documented that the patient had been lost to follow-up, missed appointments, or had been unresponsive to agency contacts and were in need of outreach services during the review period. Outreach services were provided to 95% of these clients. The most common method of outreach documented was sending a letter (71%) and/or making a telephone (49%). Home visits were provided to 11% of the clients (Table 25). Outreach was successful in reengaging 50 of the 85 clients (59%). For those for whom outreach was not successful, only 20% were officially disenrolled from the agency's co-morbidity services.

Table 25. Documented outreach to patients where outreach is indicated

Method (n=85)	#/% of clients
Letters	60 (71%)
Phone calls	42 (49%)
Home visits	9 (11%)
Street/community outreach visits	1 (1%)
Phone calls to other agencies	2 (2%)
Hospital visits	1 (1%)
Outreach method not documented	1 (1%)

Note: Multiple responses noted.

F. Data Reporting

Standard VII

Standard VII indicates that a common reporting form for co-morbidity services would be developed for documenting client progress. To date, this form has not been developed.

In respect to differentiating co-morbidity services from traditional case management, it is interesting to note that two of the five sites (40%) reported no differences. For the three agencies that reported a difference, co-morbidity services allowed for greater interaction with the clients and/or family members through a smaller case load, allowed for home visits, resulted in more frequent reminder calls about appointments and enabled case managers to accompany clients to other appointments. Of the five sites, three of the agencies (60%) report counting clients for co-morbidity services as well as other services, such as mental health or substance abuse services.

Program Evaluation

Most of the agencies (60%) reported not having a formal process in place to assess the effectiveness of the co-morbidity program. Three of the five agencies (60%) reported having an on-going quality improvement program that identifies areas for improvement within co-morbidity and delineates subsequent actions taken. One agency reported conducting a monthly chart audit and another agency reported that it examines patient compliance with appointments.

Section 4. Client-level Co-morbidity outcomes

The QIP process also sought to determine what benefits the clients received from their enrollment in Co-morbidity services. Both primary medical care and case management services were reviewed to determine: 1) whether patients received the indicated annual preventive care; 2) whether patients for whom antiretroviral treatment was indicated were on HAART by the end of the review period; and 3) whether unmet needs were met through the case management process.

A. Primary medical care

The QIP process sought to determine whether the patients received annual preventive care as indicated by current national treatment guidelines and the EMA's Standards of Care for Adult HIV Primary Medical Care (Table 26).

Slightly more than one-half (52%) of eligible patients had a documented placement of a PPD during the review period. Nine percent (9%) of the client records documented a previously reactive PPD, so placement was not indicated. Of those who had a PPD placed, the result was documented for 71%. Of the 13 patients for whom the PPD result was not documented, only one chart documented an effort to contact the patient to return to the clinic to have the PPD read.

Slightly more than one-third (36%) of eligible patients had an influenza vaccination during the review period. Six percent of the clients either declined the immunization or did not have a visit during the fall/winter months when the immunization is given.

Sixty-five percent (65%) of patients had a documented syphilis serology during the review period.

Sixty-five percent (65%) of women had a documented PAP smear. Of the six women who had an abnormal result, all but one had appropriate follow-up documented.

Table 26. Annual preventive primary care indicators

Annual primary care indicator	%
Documentation of annual PPD placement	52%
Documentation of seasonally provided influenza immunization	36%
Documentation of annual syphilis serology	65%
Documentation of annual PAP smear	65%

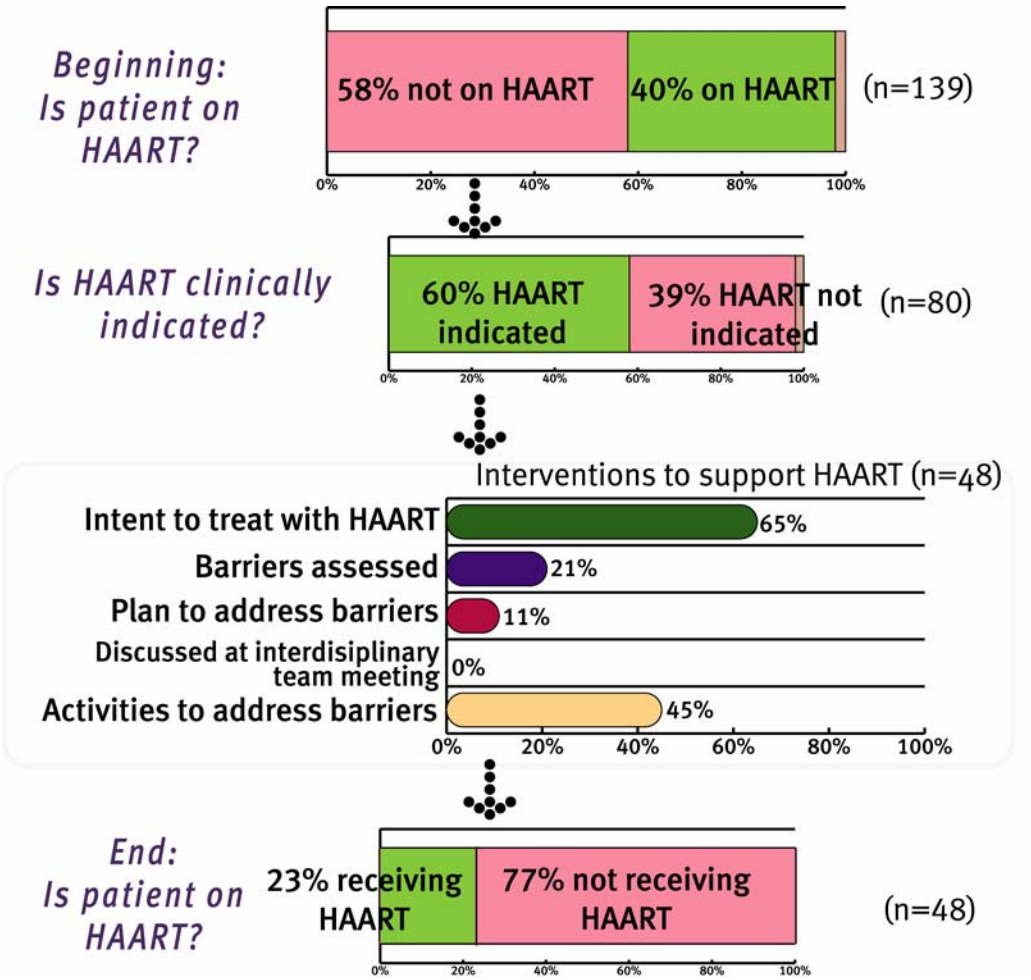
The QIP process also sought to determine whether patients received antiretroviral therapy for whom it was clinically indicated based on current national treatment guidelines. The client chart abstraction instrument abstracted data relating to four main questions: 1) current HAART treatment; 2) whether HAART was clinically indicated; 3) whether interventions to support HAART were provided to patients for whom HAART was clinically indicated; and 4) whether the patient was receiving HAART by the end of the QIP review period. Figure 1 depicts this process of initiation of antiretroviral treatment

Of the 139 records reviewed, 40% were on HAART at the beginning of the review period, or first entry; 58% (n=80) were not on HAART. For these 80 clients, HAART was clinically indicated for 60% (n=48). A variety of interventions were documented being provided to the patients for whom HAART was clinically indicated. These include, documentation by the clinician of an intent to treat the patient (65%), documentation of an assessment of barriers to HAART (21%), documentation of a plan to address these barriers (11%), documentation of discussion of treatment intent at an interdisciplinary team meeting (0%), and documentation of activities to address barriers to treatment (45%). By the end of the review period, 23% of these clients (n=11) were now receiving HAART. A total of 37 clients remained without HAART.

Documented reasons for initiating therapy included: barriers were successfully addressed and patient demonstrated compliance with other treatments; improved patient stability; alcohol and/or substance abuse issues were successfully addressed; and patients "felt ready" to initiate treatment.

It is interesting to note that the client record for each of the 11 patients who ultimately received HAART, had a documented "intent to treat" by the clinician. This may indicate a higher level of engagement of the patient in the treatment process.

Figure 1. Process of initiation of antiretroviral treatment



The QIP review also documented issues relating to changes in antiretroviral treatment for all patients who were on HAART at any time during the review period. Approximately one-third of patients on HAART had their regimen switched (63%), discontinued (23%), or interrupted (4%). The most frequently documented reasons for these changes were drug failure, concerns about patient adherence, and toxicity/adverse side effects.

B. Case management

Since one of the primary functions of Co-morbidity services is to meet identified unmet client needs, seven areas were assessed: 1) income assistance; 2) health insurance: 3) housing; 4) primary health care provider; 5) substance abuse treatment services; 6) emotional counseling; and 7) transportation/health care-related.

Adapting a case management outcomes evaluation methodology described by Mitchell H. Katz, MD and colleagues[9], QIP reviewers were asked to determine whether the:

1. Client's needs assessment identified a need in each of the six areas;
2. Client's case plan contained a goal to meet this identified need;
3. Client's record contained documentation of activities (e.g., progress notes or updated case plan) to meet this goal; and
4. Identified need was met through the provision of case management services.

Definitions of met and unmet need used for outcome analysis

Need	Definition of "Unmet "Need	Definition of "Met" Need
Income Assistance	✖ Being unemployed; and/or ✖ Not receiving any public assistance	✖ Being employed and/or ✖ Receiving some public assistance
Health Insurance	✖ Having no health insurance; and/or ✖ Having inadequate insurance to meet needs ✖ Experiencing difficulty obtaining referrals/assignment to HIV primary care and/or specialty providers from MCO	✖ Having a form of health insurance and/or ✖ Having insurance to meet unmet need ✖ Obtaining necessary referrals/assignment to HIV primary care and/or specialty providers from MCO
Housing	✖ Being unstably housed; ✖ Living in shelter, SRO, doubled-up; ✖ Living in situation other than one's own house, apt., supported living	✖ Being stably housed ✖ Living in one's own house, apt., supported living
Primary Health Care Provider	✖ Not being able to identify primary health care provider/agency for HIV and other health care needs	✖ Being able to identify a primary health care provider/agency for HIV and other health care needs; ✖ Being able to report current CD4 count, viral load, treatment regimen
Substance Abuse Treatment Services	✖ Self reported drug or alcohol use and/or dependence during period before intake; ✖ Use of illicit/prescription drugs known to cause dependence; ✖ Use of more drugs than intended; ✖ Present of emotional/psychiatric problem associated with drug use	✖ Having received professional substance abuse services or participating in a self-help group
Emotional Counseling	✖ Self-reported	✖ Having seen a mental health provider, attended a support group or seen a spiritual provider
Transportation/ Health-care related	✖ Self-reported ✖ History of missing health care related appointments due to lack of transportation	✖ Having transportation needs met; enabling compliance with health care related appointments

For purposes of this outcomes review records that contained a recent case plan were included as well as those which contained a case plan from the prior grant year. A total of 91, 65% of total records, were included in this outcomes review.

Housing and emotional counseling were the most commonly identified unmet needs, each identified in 49% of all clients; income assistance was the second most commonly identified unmet need, 47% of all

[9] Katz, MH, et. al., "Effect of Case Management on Unmet Needs and Utilization of Medical Care and Medications among HIV-Infected Persons" Annals of Internal Medicine 2001;135:557-565.

clients. Requiring a primary health care provider was the least frequently identified unmet need. Almost all clients requiring a primary health care provider or emotional counseling had this need met, 90% and 87%, respectively. While 40% of clients had an identified need for substance abuse treatment services, 42% still had an unmet need at the end of the review period. Income assistance and housing was the least met need, 47% and 53%, respectively. Table 27 provides a summary of the findings of this outcomes assessment.

Table 27. Client level Co-Morbidity case management service outcomes

Note regarding tables: For each service area, the percent of client records with an identified unmet need is listed (shaded row). The three subsequent rows—goal established, activities documented, and need met—the percentages are based on the number of client records with an identified unmet need.

Service Area		Discussion
Income Assistance		Income assistance was the most second most frequently identified unmet need. Most of these clients had a goal established in their action plan and Co-morbidity activities documented relating to income assistance, 47% of clients had this need met during the review period.
% with unmet need	47%	
% with goal established	88%	
% with activities documented	91%	
% with unmet need met	47%	
Health Insurance		Three quarters of clients with an unmet need for health insurance had this need met; goals and activities were frequently documented for clients with this unmet need.
% with unmet need	41%	
% with goal established	86%	
% with activities documented	95%	
% with unmet need met	73%	
Housing		Housing was the most frequency identified unmet need. While most of these clients had a a goal established in their action plan and Co-morbidity activities documented relating to securing housing, only 53% had this need met during the review period. Obtaining housing is both difficult and a lengthy process, so this low level of achievement is not unexpected.
% with unmet need	49%	
% with goal established	91%	
% with activities documented	96%	
% with unmet need met	53%	
Primary Health Care Provider		Few of the clients with a care plan had a need for a primary health care provider, and almost all with this unmet need had them met during the review period.
% with unmet need	11%	
% with goal established	90%	
% with activities documented	90%	
% with unmet need met	90%	
Substance Abuse Treatment Services		40% had an unmet need for substance abuse treatment services, and most of these clients had a a goal established in their action plan and Co-morbidity activities documented relating to securing substance abuse treatment. Only 58% had this need met during the review period.
% with unmet need	40%	
% with goal established	86%	
% with activities documented	86%	
% with unmet need met	58%	

Service Area	Discussion
Emotional Counseling **% with unmet need 49%** % with goal established 89% % with activities documented 91% % with unmet need met 87%	Along with housing, emotional counseling was the most frequency identified unmet need. Almost all clients had this unmet need met during the review period. Case managers and other providers appear to be successful in meeting clients' needs for emotional counseling and mental health services.
Transportation/Health-care related **% with unmet need 32%** % with goal established 93% % with activities documented 83% % with unmet need met 76%	Only one-third (32%) had an unmet need for transportation services related to their health care appointments. Almost all of these clients had a goal established in their care plan, with 76% having the need met.

Section 5. Discussion

As a whole, the Co-Morbidity Standards were not as specific as other service categories. For those sections of the Standards that did focus on service delivery, the QIP process provided a systematic review of compliance for 100% of Co-morbidity Service providers (n=5) receiving Title I funds during FY2001. A total of 139 client records were reviewed, representing 32.1% of the reported Title I Co-morbidity clients served in the Baltimore EMA. Overall, the populations served by the vendors mirror the target populations identified in the Standards. Of the 139 client records reviewed, 30% of the clients were homeless, 37% had a history of substance use, and two-thirds had a history of mental illness.

The process of service provision to meet the goal of the service category is noted in the following areas:

- Co-located services are provided at 100% of the sites, which represent a homeless service facility, a local health department, a mental health provider and two primary care facilities.

- Walk-in appointments are used as one strategy for increasing accessibility of care at three of the five sites (60%).

- Four of the five agencies (80%), reported providing outreach services as part of co-morbidity services. Of those agencies with an outreach component, 100% focus on maintaining clients in care over time and on re-engaging clients lost to follow-up. One agency (20%) reported utilizing the service to identify and link-HIV-positive clients to care who were not currently in service. Outreach activities were provided to 95% of clients in need of outreach. The most common outreach methods included phone calls, letters, and home visits. Outreach was successful in reengaging 59% of these clients.

- Treatment status was documented in 96.4% of reviewed client records. The effectiveness of HAART is documented with a 9.3% increase in the mean CD4 value for clients who were on HAART at any time and had two document CD4 values. A corresponding 3.3% decrease in the mean CD4 value was noted for those clients not on HAART.

- All agencies (100%) require documentation of HIV status for provision of service.

- Emotional counseling was one of the top two most frequently identified unmet needs and 87% had this need met during the review period. Case managers and other providers appear to be successful in meeting clients' needs for emotional counseling and mental health services.

Because Co-morbidity Services was initially developed as a time-limited pilot project, the Standards of Care were not as detailed and comprehensive as other service categories. The Standards focused primarily on the service model and deferred to an evaluation of the category after the pilot projects had been implemented. The QIP process served to gather information about the models that have been implemented and highlights areas where additional direction and clarification is needed. These areas are discussed and include the following:

1) client eligibility;
2) referrals for co-morbid services;
3) service integration;
4) adherence and retention strategies;
5) clinical care; and
6) data reporting.

Client Eligibility

While all sites require HIV status to be documented for eligibility, two sites (40%) reported offering co-morbidity services for clients who are eligible for Medicaid. A third site (20%) was unclear whether or not Medicaid was an established eligibility criterion for their facility. Nearly one-half (48%) of client records reviewed documented Medicaid as the client's form of health insurance during the review period. Standard IV.a specifically states that clients eligible for Medicaid are not eligible for Co-morbidity services.

Referrals for Co-morbid Services

It is interesting to note that the majority of the agencies felt that the two primary reasons for clients being referred for co-morbidity services were due to difficulty adhering to treatment regimen (80%) and clients who were lost to follow-up (80%). The client record abstraction data indicate that clients were most often referred for Co-morbidity services because of the presence of a co-morbid condition (76%) rather than a specific issue related to adherence (4%) or lost to follow-up (4%). The presence of a co-morbid condition makes it even more interesting as documentation of specific co-morbid conditions were not consistently reported across the agencies. Of those clients receiving substance abuse services as part of Co-morbidity services only 31% had a documented substance abuse addiction diagnosis. Of those receiving mental health services (n=54), only 41% had a documented health disorder.

Of the 91 records that contained a recent case plan (65% of client records reviewed), 40% documented an unmet need for substance abuse treatment services. While most of these clients had a goal established in their action plan to address this issue and Co-morbidity activities relating to securing substance abuse treatment, only 58% had this need met during the review period.

Service Integration

In respect to differentiating Co-morbidity services from traditional case management, it is interesting to note that two of the five sites (40%) reported no differences. For the three agencies that reported a difference, Co-morbidity services were reported to allow for greater interaction with the clients and/or family members through a smaller case load, allowed for home visits, resulted in more frequent reminder calls about appointments and enabled case managers to accompany clients to other appointments.

The approach for integrating service and coordinating care varied across the agencies. In two agencies, case managers serve as the care coordinator (n=2) while a substance abuse counselor fulfills this role at a third agency (n=1). In two other sites (40%) funds are used to support multiple positions instead of a single care coordinator. While co-located services are available at 100% of the sites, coordination of scheduling was implemented at only 60% of the sites (n=3) and of the client records reviewed, only 12% documented such coordination.

All (100%) of the agencies reported routinely using interdisciplinary team meetings to integrate services, however, almost none (3%) of the reviewed client records documented review of the case during an interdisciplinary team meeting. The use of shared treatment plans was reported by three of the agencies (60%) while only one agency (20%) reported using service integration plans. Review of the client records indicate that shared treatment plans were utilized for 33% of the records reviewed. None of the records (0%) contained service integration plans. The use of a shared client record was the most frequent mechanism utilized to integrate care with 92% of the records reviewed.

Standard VI.c specifically states that "…mechanisms for the integration of care must be explicitly described…" however, only two of the five agencies (40%) reported having formal policies and procedures which address the requirements and methods for integration of care.

Adherence and Retention Strategies

The rationale for Co-morbidity services was to assist clients whose co-morbidity presents additional challenges to being retained in care and adherent with treatment regiments. The review of client records

documented a wide array of interventions employed. The largest number of documented interventions focused on referrals for mental health or substance abuse treatment to address the client's underlying co-morbidity. However, no single intervention to facilitate retention and/or adherence was provided to more than one-third of patients.

Four of the five agencies (80%), reported that outreach services are provided as part of co-morbidity services. Of the client records reviewed, 65% (n=90) documented that the patient had been lost to follow-up, missed appointments, or had been unresponsive to agency contacts and were in need of outreach services during the review period. Outreach services were provided to 95% of these clients. The most common methods of outreach documented included non-intensive strategies, such as sending a letter (71%) or making a telephone call (49%). More intensive strategies, such as home visits were provided to 11% of the clients. Outreach was successful in reengaging 50 of the 85 clients (59%). For those for whom outreach was not successful, only 20% were officially disenrolled from the agency's co-morbidity services.

Clinical Care

Review of client records noted areas for improvement in regards to the provision of indicated annual care. As previously noted, slightly more than 60% of eligible patients had a documented placement of a PPD during the review period or a previously reactive PPD. Of those who had a PPD placed, the result was documented for 71%. Of the 13 patients for whom the PPD result was not documented, only one chart documented an effort to contact the patient to return to the clinic to have the PPD read.

Slightly more than one-third (36%) of eligible patients had an influenza vaccination during the review period. Six percent of the clients either declined the immunization or did not have a visit during the fall/winter months when the immunization is given. Sixty-five percent (65%) of patients had a documented syphilis serology during the review period and 65% of women had a documented PAP smear.

In respect to antiretroviral therapy, of those for whom HAART was clinically indicated, 40% were on HAART at the beginning of the review period, or first entry and 58% (n=80) were not on HAART. Of the 80 clients for whom HAART was clinically indicated, 77% were still not on HAART after interventions to support HAART were implemented.

Data Reporting

Of the five sites, three of the agencies (60%) report counting clients for Co-morbidity services as well as other services, such as mental health or substance abuse services, even though those services were provided as part of the co-morbid services. Additionally, the Standards reference a reporting form which would be used to monitor and report client progress. This reporting process, which could provide useful data to assess the effectiveness of this service category, has not been implemented.

Section 6. Recommendations

The primary recommendations for Co-morbidity Services focus on three areas: 1) priority areas for quality improvement projects; 2) review and revision of the Standards of Care; and 3) development of quality indicators for Co-morbidity Services.

Priority Areas for Quality Improvement Projects

As previously outlined, the most notable issues related to the provision of Co-morbidity services focus on six main areas: 1) client eligibility; 2) referrals for co-morbid services; 3) service integration; 4) adherence and retention strategies; 5) clinical care; and 6) data reporting. As the EMA and individual vendors identify quality improvement projects to undertake, these six areas can be incorporated into those projects.

Review and Revision of the Standards of Care

As an initial step in the quality improvement process, it is critical to review the Co-mordbidity service category and as part of this, to also review the Standards of Care of the service categories that are closely linked: Primary Care: Co-Morbidity, Adult HIV Primary Medical Care and Case Management Adherence. Additionally, the other service categories of Mental Health, Substance Abuse and Case Management are also highly utilized by this target population and should be incorporated into this review. For each service category, the purpose and goal should be carefully assessed and defined to minimize duplication and offer a discrete service.

Within the currently published Standards, specific areas that should be addressed or enhanced include: 1) client eligibility; 2) intensity and level of service; 3) expectations for service integration methods; 4) content of service integration plan and adherence plans; 5) expectations for agency policies and procedures; 6) and expectations for monitoring and reporting.

The Standards should also specify the client-level data providers should be expected to document not only as part of the initial assessment but also to regularly update. These include:

- HIV-transmission risk
- CD4 value
- Viral load
- Current medications, including antiretroviral therapy
- Current primary medical care provider
- Case manager/case management agency
- Insurance status

Additionally, it may be beneficial to expand the routine reporting requirements to include type of treatment modalities provided and more client-specific utilization data that can be used to monitor trends.

Quality Indicators

As the Standards are revised, incorporation of quality indicators is integral to the quality improvement process. By identifying the core indicators to track and trend, the expectations regarding service delivery are further clarified. Based on the review of the Standards and the data collected as part of the QIP review process, the recommended core quality indicators to track as part of Co-morbidity Services are identified in Table 28. Target performance goals have also been identified in this table, but the actual goal should be finalized in conjunction with BCHD and the Planning Council.

Table 28. Recommended Quality Indicators for Primary Care: Co-Morbidity Services

Quality Indicator	Performance Goal
% of client records which document a CD4 count test and viral load performed every 4 months.	90%
% of client records which document provision of anti-retroviral therapy in accordance with current DHHS Guidelines.	90%
% of clients records which include an assessment of barriers to retention in care and adherence to treatment.	85%
% of client records which document completion of a written treatment plan which includes primary care, case management and co-morbid conditions.	85%
% of client records which document review of the written treatment plan on a quarterly basis.	85%
% of client records which document an interdisciplinary team meeting held every 6 months.	80%
% of client records which document referral to outreach for clients who have been lost to care.	80%

Appendices

- Appendix A. Summary of Documented Multi-axial Diagnoses
- Appendix B. Client Chart Abstraction Instrument: Primary Care: Co-Morbidity
- Appendix C. Primary Care: Co-Morbidity Agency Interview
- Appendix D. Standards of Care, Primary Care: Co-Morbidity, ratification date: January 2001. Greater Baltimore HIV Health Services Planning Council. http://www.baltimorepc.org.

Appendix A. Summary of Multi-axial diagnoses

As part of the client record review process, DSM-IV diagnoses for mental health and substance abuse services were documented. The tables below indicate the frequency of each diagnosis by service category.

# of patients	DSM-IV Code	Mental Health Diagnosis
6	309	Adjustment Disorder With Depressed Mood
5	296.32	Major Depressive Disorder, Recurrent, Moderate
5	304.8	Polysubstance Dependence
4	303.9	Alcohol Dependence
4	305	Alcohol Abuse
4	311	Depressive Disorder NOS
3	296.34	Major Depressive Disorder, Recurrent, Severe With Psychotic Features
3	296.89	Bipolar II Disorder
3	296.9	Mood Disorder NOS
3	300	Anxiety Disorder NOS
3	304	Opioid Dependence
2	295.7	Schizoaffective Disorder
2	296.33	Major Depressive Disorder, Recurrent, Severe Without Psychotic Features
2	300.22	Agoraphobia Without History of Panic Disorder
2	304.2	Cocaine Dependence
2	305.2	Cannabis Abuse
2	309.81	Posttraumatic Stress Disorder
1	293.9	Mental Disorder NOS Due to...[Indicate the General Medical Condition]
1	294.8	Amnestic Disorder NOS
1	294.9	Cognitive Disorder NOS
1	295.3	Schizophrenia, Paranoid Type
1	296.04	Bipolar I Disorder, Single Manic Episode, Severe With Psychotic Features
1	296.23	Major Depressive Disorder, Single Episode, Severe Without Psychotic Features
1	296.3	Major Depressive Disorder, Recurrent, Unspecified
1	296.35	Major Depressive Disorder, Recurrent, In Partial Remission
1	296.36	Major Depressive Disorder, Recurrent, In Full Remission
1	296.53	Bipolar I Disorder, Most Recent Episode Depressed, Severe Without Psychotic Features
1	296.66	Bipolar I Disorder, Most Recent Episode Mixed, In Full Remission
1	296.8	Bipolar Disorder NOS
1	300.02	Generalized Anxiety Disorder
1	300.21	Panic Disorder With Agoraphobia
1	300.4	Dysthymic Disorder
1	309.28	Adjustment Disorder With Mixed Anxiety and Depressed Mood
1	312.3	Impulse-Control Disorder NOS
1	314	Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type

# of patients	DSM-IV Code	Substance Abuse Diagnosis
8	304	Opioid Dependence
7	304.2	Cocaine Dependence
4	296.9	Mood Disorder NOS
3	303.9	Alcohol Dependence
2	296.34	Major Depressive Disorder, Recurrent, Severe With Psychotic Features

2	305	Alcohol Abuse
2	305.6	Cocaine Abuse
1	296.52	Bipolar I Disorder, Most Recent Episode Depressed, Moderate
1	304.4	Amphetamine Dependence
1	309.24	Adjustment Disorder With Anxiety
1	311	Depressive Disorder NOS
1	312.3	Impulse-Control Disorder NOS

BCHD Quality Improvement Project
Primary Medical Care: Co-Morbidity
Client Chart Abstraction Instrument

Section 1. Reviewer Information

Instructions: Complete the requested information. The primary care, case management, substance abuse and mental health charts should be used during the review of clients receiving Primary Medical Care: Co-Morbidity services.

1.1	Date of review	
1.2	Name of reviewer	
1.3	Time start chart review	
1.4	Time end chart review	
1.5	Total time for chart review (hrs:min)	
1.6	Dates of services reviewed in chart	☐ 3/1/01 to 2/28/02 (Default) ___ / ___ / _____ to ___ / ___ / _____
1.7	Was chart **opened/Co-Morbidity services initiated** during review period?	☐ Yes ☐ No; co-morbidity services initiated prior to review period ☐ Not documented in chart
1.8	Was **chart closed/client terminated** from **Co-Morbidity** services during review period?	☐ Yes ☐ No; client continued to receive co-morbidity services throughout review period ☐ Not documented in chart

Service Category	Client receiving?	Chart Provided	Client Record Number	Date service began	Date service terminated
Primary Care	☐ Yes ☐ No	☐ Yes ☐ No			☐ Not terminated
Case Management	☐ Yes ☐ No	☐ Yes ☐ No			☐ Not terminated
Substance Abuse	☐ Yes ☐ No	☐ Yes ☐ No			☐ Not terminated
Mental Health	☐ Yes ☐ No	☐ Yes ☐ No			☐ Not terminated

Section 2. Client Demographics

Instructions: Provide the requested information based on information contained in the client's chart.

2.1	Date of birth	___ / ___ / _____ ☐ Age on 2/28/02 if no dob in chart ____ ☐ Not documented in chart
2.2	Gender	☐ Male ☐ Female ☐ Transgender ☐ Not documented in chart
2.3	Race/Ethnicity	☐ White ☐ Black/African-American ☐ Hispanic/Latino/a ☐ Asian/Pacific Islander ☐ American Indian/Alaska Native ☐ African ☐ Caribbean ☐ Other: Specify: ☐ Not documented in chart
2.4	HIV risk factor *[Check all that apply]*	☐ Men who have sex with men (MSM) ☐ Injecting drug user (IDU) ☐ MSM and IDU ☐ Heterosexual contact ☐ Heterosexual contact and IDU ☐ Hemophilia/coagulation disease or receipt of blood products ☐ Undetermined/unknown, risk not reported ☐ Perinatal transmission ☐ Other: Specify: ☐ Not documented in chart
2.5	Zip code client residing in on 3/1/01 (or first entry In review period)	_____ City, if no zip code indicated: ☐ Not documented In chart
2.6	Homelessness	Was client homeless at any time during the review period? ☐ Yes ☐ No ☐ Not documented in chart

2.7.a	Client health Insurance on 3/1/01 (or first entry In review period) *[Check all that apply]*	☐ None ☐ Medicaid ‹See list of Medicaid MCOs› ☐ CHIPS ☐ Maryland AIDS Drug Assistance Program ☐ Maryland Pharmacy Assistance Program ☐ Maryland Primary Care Program ☐ Medicare ☐ Private/Commercial ☐ Veteran's Administration ☐ Corrections ☐ Unknown [client reports not knowing] ☐ Other: Specify: ☐ Not documented in chart

List of Maryland's HealthChoice Medicaid MCOs

AMERICAID Community Care
Helix Family Choice
Jai Medical Systems
Maryland Physicians Care
Priority Partners
United HealthCare

2.7.b	Client health Insurance on 2/28/02 (or last entry In review period) *[Check all that apply]*	☐ None ☐ Medicaid ‹See list of Medicaid MCOs› ☐ CHIPS ☐ Maryland AIDS Drug Assistance Program ☐ Maryland Pharmacy Assistance Program ☐ Maryland Primary Care Program ☐ Medicare ☐ Private/Commercial ☐ Veteran's Administration ☐ Corrections ☐ Unknown [client reports not knowing] ☐ Other: Specify: ☐ Not documented in chart

2.8.a	HIV-disease status on 3/1/01 (or first entry In review period)	☐ HIV-positive, not AIDS Date of dx: ___/___/ ____ ☐ Date not documented in chart ☐ CDC defined AIDS Date of dx: ___/___/ ____ ☐ Date not documented in chart ☐ Not documented in chart
2.8.b	HIV-disease status on 2/28/02 (or last entry In review period)	☐ Deceased Date of death: ___/___/ _____ ☐ Date not documented in chart ☐ HIV-positive, not AIDS Date of dx: ___/___/ _____ ☐ Date not documented in chart ☐ CDC defined AIDS Date of dx: ___/___/ _____ ☐ Date not documented in chart ☐ Not documented in chart

2.9.a	CD4/Viral Load 3/1/01 (or first entry in review period)	CD4 _____ cells/uL Date of test: ___/___/ _____ ☐ Date not documented in chart Viral load: _____ Date of test: ___/___/ _____ ☐ Date not documented in chart ☐ Not documented in chart **ⓘ Source:** ☐ Documented patient self report ☐ Copy of lab report in chart ☐ Communication from medical provider (e.g., letter, medical encounter progress note) ☐ Patient flow sheet in chart ☐ Other/Specify:
2.9.b	CD4/Viral Load 2/28/02 (or last entry in review period)	CD4 _____ cells/uL Date of test: ___/___/ _____ ☐ Date not documented in chart Viral load: _____ Date of test: ___/___/ _____ ☐ Date not documented in chart ☐ Not documented in chart **ⓘ Source:** ☐ Documented patient self report ☐ Copy of lab report in chart ☐ Communication from medical provider (e.g., letter, medical encounter progress note) ☐ Patient flow sheet in chart ☐ Other/Specify:
2.10.a	Client on HAART 3/1/01 (or first entry in review period)	☐ Yes ☐ No ☐ Treatment not documented in chart **ⓘ Source:** ☐ Documented patient self report ☐ Copy of medication sheet from medical provider ☐ List of medications maintained by case manager ☐ Communication from medical provider (e.g., letter, medical encounter progress note) ☐ Other/Specify:
2.10.b	Client on HAART 2/28/02 (or last entry In review period)	☐ Yes ☐ No ☐ Treatment not documented in chart **ⓘ Source:** ☐ Documented patient self report ☐ Copy of medication sheet from medical provider ☐ List of medications maintained by case manager ☐ Communication from medical provider (e.g., letter, medical encounter progress note) ☐ Other/Specify:

2.11
Mental Health Multi-Axial Diagnosis

Does chart document a multi-axial diagnosis made by the mental health provider?
☐ Yes, chart does document a multi-axial diagnosis developed from evaluation data.
☐ No, chart does not document a multi-axial diagnosis developed from evaluation data.
☐ Not applicable, client not receiving mental health services

Date of diagnosis: _____ ☐ Not documented in chart
Documented mental health diagnosis:

Axis I:	
Axis II:	
Axis III:	
Axis IV:	
Axis V: ▸ Current GAF:	☐ GAF not documented
▸ Highest GAF in prev. 12 months:	☐ GAF not documented

2.12
Substance Abuse Multi-Axial Diagnosis

Does chart document a multi-axial diagnosis made by the substance abuse provider?
☐ Yes, chart does document a multi-axial diagnosis developed from evaluation data.
☐ No, chart does not document a multi-axial diagnosis developed from evaluation data.
☐ Not applicable, client not receiving substance abuse services

Date of diagnosis: _____ ☐ Not documented in chart
Documented substance abuse diagnosis:

Axis I:	
Axis II:	
Axis III:	
Axis IV:	
Axis V: ▸ Current GAF:	☐ GAF not documented
▸ Highest GAF in prev. 12 months:	☐ GAF not documented

Section 3. Client Co-Morbidity: Integration of Care

Instructions: Complete the requested information.

3.1	Date of referral for co-morbidity services	_____ ☐ Information not provided
3.2	Date of enrollment in co-morbidity services	_____ ☐ Information not provided
3.3	Reason for referral for co-morbidity services	Why was client determined to be eligible for co-morbidity services? (Check all that apply) ☐ A significant number of medical appointments were missed. ☐ Client had difficulty adhering to treatment regimen. ☐ Patient lost to follow-up and reengaged for services at the agency. ☐ Presence of co-morbid condition: ☐ Mental illness ☐ Substance abuse ☐ Homeless ☐ Other/Specify: ☐ Information not provided
3.4	Who referred client into co-morbidity services?	Internal referral: ☐ Medical Personnel ☐ Case Manager ☐ Mental Health Provider ☐ Substance Abuse Provider ☐ Outreach Worker ☐ Other Personnel/Specify: External referral: ☐ Medical Personnel ☐ Case Manager ☐ Mental Health Provider ☐ Substance Abuse Provider ☐ Outreach Worker ☐ Other Personnel/Specify: ☐ Medicaid MCO case manager ☐ Client/self-referral ☐ Information not provided ☐ Other/Specify:
3.5	Does client meet the agency's eligibility criteria?* *As defined by the agency during agency interview.	☐ Yes ☐ No ☐ Information not provided

3.6 Care for clients must be integrated *[CoM Standard VI.b]*

❶ Do the client records document integration of care across the service categories?
☐ YES; ▶ CONTINUE
☐ No evidence of integration of care is documented in the client records. GO TO 3.7
☐ Not applicable/Specify:

❷ If YES, then indicate the mechanisms used for the integration of care:
[Check the mechanisms used and the disciplines involved]

☑	Mechanism	Primary Care	Case Mgmt	Sub. Abuse	Mental Health	Other/ Specify
☐	Interdisciplinary team meetings	☐	☐	☐	☐	☐
☐	Shared treatment plan	☐	☐	☐	☐	☐
☐	Shared chart	☐	☐	☐	☐	☐
☐	Patient/Family meetings	☐	☐	☐	☐	☐
☐	Service integration plan	☐	☐	☐	☐	☐
☐	Inter-agency meetings	☐	☐	☐	☐	☐
☐	Other/Specify	☐	☐	☐	☐	☐
☐	Other/Specify	☐	☐	☐	☐	☐

❸ What was the frequency of interdisciplinary team meetings for the client during the review period?
- ☐ No interdisciplinary team meetings held during the review period.
- ☐ Annually
- ☐ Semi-annually
- ☐ Quarterly
- ☐ Monthly
- ☐ Weekly
- ☐ Other/Specify:

❹ Is the frequency of interdisciplinary team meetings consistent with frequency stated by the agency in the agency survey?

- ☐ Yes
- ☐ No
- ☐ No interdisciplinary team meetings held during the review period.

3.7 Co-Location of services *[CoM Standard VI.a]*

Are the co-morbidity services being provided on-site for patients? (Check for each service.)

Primary Care	☐ Yes	☐ No	☐ Client did not receive
Substance Abuse	☐ Yes	☐ No	☐ Client did not receive
Mental Health	☐ Yes	☐ No	☐ Client did not receive
Case Management	☐ Yes	☐ No	☐ Client did not receive
Homeless Services	☐ Yes	☐ No	☐ Client did not receive

3.8	Coordination of scheduling	For the co-morbidity services being provided, is there coordination of the scheduling of patient visits to reduce the visit burden on the client? ☐ Yes ☐ No ☐ Information not provided
3.9	Coordination of care may be facilitated by a Professional Case Manager or other designated, qualified care coordinator. *[CoM Standard VI.d]*	❶ Do the client records document that care is coordinated across disciplines by an identified, single staff person? ☐ YES; ▶ CONTINUE ☐ No evidence of coordination of care across disciplines. GO TO 3.10 ☐ Not applicable/Specify: ❷ If YES, then indicate the discipline of the "care coordinator" ☐ Social worker ☐ Nurse ☐ Substance abuse counselor ☐ Physician (MD) ☐ Psychologist ☐ Nurse Practitioner (NP) ☐ Physician Assistant (PA) ❸ Who is responsible for making and tracking **internal** referrals for the client? ☐ The identified "care coordinator" ☐ The service provider/discipline providing the services ☐ Both ☐ Charts do not indicate that **internal** referrals are made and/or tracked ☐ Other ❹ Who is responsible for making and tracking **external** referrals for the client? ☐ The identified "care coordinator" ☐ The service provider/discipline providing the services ☐ Both ☐ Charts do not indicate that **external** referrals are made and/or tracked ☐ Other/Specify:
3.10	Outreach *[CoM Standard VI.e]*	❶ Does the client record document if the client had been lost to follow-up, had missed appointments, and/or been unresponsive to agency contacts during the review period? ☐ YES; ▶ CONTINUE ☐ No the charts document that client remained engaged in all services being provided at the agency. ▶ GO TO 3.11 ❷ If YES, then did the agency provide outreach services to re-engage the client in services? ☐ YES; ▶ CONTINUE ☐ No the charts do not document any outreach efforts to the client ▶ GO TO 3.11 ☐ Not applicable/Specify: Question 3.10 continued ⇢

❸ What outreach services were used? (Check all that apply)
- ☐ Documented phone calls to client
- ☐ Documented letters to client
- ☐ Home visit by/Specify: _____
- ☐ "street/community" visit by/Specify: _____
- ☐ Documented phone calls to other agencies who provide services to client to locate the client.
- ☐ Other/Specify:

❹ Were outreach services successful in locating client?
- ☐ Yes
- ☐ No
- ☐ Information not provided

❺ As a result of the outreach services, was the client successfully reengaged in services?
- ☐ YES; client successfully reengaged in services.
- ☐ No; client not reengaged in services.
  - ⏩ If NO, was the client terminated from services?
  - ☐ YES; client terminated from services.
  - ☐ No; client not terminated from services; chart remained open.
- ☐ Not applicable/Specify:

3.11 Access to antiretroviral treatment
[CoM Standard I]

3.11a At the beginning of the review period (or first entry of the review period), was client on HAART in accordance to the DHHS treatment guidelines?
- ☐ Yes ▶ GO TO 3.12
- ☐ No ▶ CONTINUE
- ☐ Information not provided

3.11b Based on the DHHS treatment guidelines, was HAART indicated?
- ☐ Yes ▶ CONTINUE
- ☐ No ▶ GO TO Section 4
- ☐ Information not provided

3.11c Does the chart indicate why the client is not on HAART?
- ☐ Yes/Summarize reasons documented;
- ☐ No
- ☐ Information not provided

3.11d Is there an "intent to treat" the patient?
- ☐ Yes
- ☐ No
- ☐ Information not provided

3.11e Are barriers to HAART therapy assessed/documented?
- ☐ Yes [Summarize in table on page 11]
- ☐ No
- ☐ Information not provided

Question 3.11 continued ⇢

3.11f Based on documentation in chart(s), does the treatment team document a plan/strategy to address the identified barriers with the goal of providing HAART therapy?

☐ Yes
- ▶ Are goals established in treatment/care plan? ☐ Yes
- ▶ Are these barriers discussed at interdisciplinary meetings? ☐ Yes

☐ No
☐ Information not provided

3.11g Based on documentation in chart(s), does the treatment team document activities performed during the review period to address the barriers to HAART therapy?

☐ Yes
☐ No
☐ Information not provided

3.11h By the end of the review period, is the client receiving HAART therapy in accordance with DHHS treatment guidelines?

☐ Yes
- ▶ Date began: _____
- ▶ Summarize rationale(s) for beginning treatment: ☐ Information not provided

☐ No
- ▶ Summarize rationale(s) for not providing treatment: ☐ Information not provided

☐ Information not provided

3.11i For clients who were on HAART at any time during the review period, was client's HAART regimen switched, discontinued and/or interrupted?

☐ Yes: ☐ switched ☐ discontinued ☐ interrupted
- ▶▶ Indicate documented reason(s) for change:
  - ☐ Reason for change not documented
  - ☐ Drug failure; suboptimal virologic response
  - ☐ Toxicity/adverse side effects
  - ☐ Patient request
  - ☐ Documented resistance (e.g., use of resistance testing)
  - ☐ Concerns re patient adherence
  - ☐ Patient not able to obtain medications
  - ☐ Other/specify:

☐ No
☐ Information not provided

Question 3.11 continued ⇢

3.11j At the end of the review period (or last entry of the review period), was client on HAART in accordance to the DHHS treatment guidelines?

☐ Yes
☐ No
☐ Information not provided

3.12 Adherence to antiretroviral treatment
[CoM Standard I]

Complete the "Components of Client adherence intervention plan" table (next page).
Indicate below reason for not being able to complete the table.

☐ Issues relating to adherence are not documented in patient chart(s)
☐ Client not on/not a candidate for HAART; adherence issues not addressed.
☐ Other/Specify:

3.11.e Identified barriers to HAART

Barrier	Code

3.12b Components of client adherence intervention plan

Check areas/interventions included in the client's adherence intervention plan

Client co-morbidities interventions
☐ Referral for mental health/psychiatric assessment and/or treatment
☐ Referral for alcohol/substance use assessment and/or treatment
☐ Other/Specify:
☐ Other/Specify:
Client education and skills-building interventions
☐ Working with client to design dosing schedule that fits client routine/lifestyle.
☐ Identification of potential reasons for missed doses and strategies to address them.
☐ Practice pill-taking with mock medications (e.g., jellybeans).
☐ Education about the relationship between antiretroviral therapy and viral load.
☐ Education about the consequences of non-adherence.
☐ Education about what to do if dose is missed and/or late.
☐ Education about the regimen and strategies to remember (e.g., daily calendar, pill boxes).
☐ Education about anticipated side effects and side effect management.
☐ Education/skills-building around disclosure issues.
☐ Other/Specify:
☐ Other/Specify:
☐ Other/Specify:
Patient support interventions
☐ Linkage to peer advocate or mentor.
☐ Linkage to home nursing care for adherence-related visits.
☐ Telephone calls (or other contacts) to see how client is doing on new/modified regimen.
☐ Telephone calls (or other contacts) to remind client of scheduled medical appointments.
☐ Tracking of client medication refill dates and reminder calls to clients to refill prescription.
☐ Filling patient's pill box on a regular basis.
☐ Providing client a timer, watch, or other method to remind client.
☐ Peer support group.
☐ Coordination with other family members' medical and treatment regimens.
☐ Address language barriers through use of translator, interpreters, etc.
☐ Other/Specify:
☐ Other/Specify:
☐ Other/Specify:
Access interventions
☐ Assistance in obtaining MADAP or other pharmaceutical assistance to assure continuity.
☐ Improve access to pharmaceuticals (on-site refills, interim doses, etc.).
☐ Reminder calls prior to appointments and to identify specific barriers/needs.
☐ Referrals for transportation, child care, or other services needed to attend appointments.
☐ Identification of more accessible provider.
☐ Coordination with other family members' medical and treatment regimens.
☐ Address language barriers through use of translator, interpreters, etc.
☐ Reviewing patient's pharmacy records for adherence.
☐ Other/Specify:
☐ Other/Specify:
☐ Other/Specify:

Section 4. Annual clinical care

Instructions:
This section contains clinical items which are to be addressed and documented by primary care clinicians on an annual basis.

4.1	Documentation of PPD placement Documentation of patient's return for PPD reading and test result	☐ **Yes**, chart contains evidence that PPD skin test was placed. ▸ Was patient's PPD read and documented in chart? ☐ Yes ▸ If **Yes,** PPD result: ☐ Negative ☐ Positive (induration ≥ 5mm) ☐ No ▸ If **No**, does chart contain documented attempts to contact clients? ☐ Yes ☐ No ☐ **No**, chart does not contain evidence that standard was met. ☐ This standard **not applicable** to this client's situation; specify: ☐ Patient has prior positive test; PPD testing not indicated ☐ Other/Specify:
4.2	Immunization: Influenza (Seasonally provided)	☐ **Yes**, chart contains evidence that standard was met. ☐ **No**, chart does not contain evidence that standard was met. ☐ This standard **not applicable** to this client's situation; specify: ☐ Patient did not have visit during fall/winter months when influenza Immunization Is given. ☐ Patient offered, but declined immunization.
4.3	Syphilis serology: VDRL or RPR	☐ **Yes**, chart contains evidence that standard was met. ☐ **No**, chart does not contain evidence that standard was met.
4.4	Documentation of annual PAP smear, and result with appropriate follow-up	☐ **Yes**, chart contains evidence that standard was met ▸ If result was abnormal, was follow-up documented? ☐ Yes ☐ No ☐ **No**, chart does not contain evidence that standard was met. ☐ This standard **not applicable:** Client Is male.

Section 5. Service Outcomes

Instructions:

This section should be completed only for clients who had an action plan during the review period. Reviewers are asked to determine:

A) whether an unmet need was identified during the intake/assessment in 7 areas (income assistance, health insurance, housing, primary health care provider, substance abuse treatment services, emotional counseling, and transportation), and, if the unmet need was identified, then determine;
B) whether a goal to meet this unmet need was established in the action plan;
C) whether the chart contains documentation relating to client advocacy activities performed to meet this unmet need; and
D) whether the unmet need was met.

▶ If the chart does not contain a client action plan, check here: ☐ ■ END OF CHART REVIEW

5.1 **Income Assistance** Definition of unmet need: • Being unemployed; and/or • Not receiving any public assistance (SSI, SSDI, TANF) Definition of met need: • Being employed; and/or • Receiving some public assistance (SSI, SSDI, TANF)	A. Was unmet need for income assistance identified in latest assessment? ☐ Yes ☐ No ▶ GO TO 5.2 ☐ No intake/assessment in chart ▶ GO TO 5.2 B. Was goal established in latest action plan to address need for income assistance? ☐ Yes ☐ No C. Is there documentation in chart relating to case management adherence activities performed to address the need for income assistance? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart D. Was the identified need for income assistance met? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart

5.2 **Health insurance** Definition of unmet need: • Having no health insurance; and/or • Having inadequate insurance to meet needs (e.g., medications) • Experiencing difficulty obtaining referrals/assignment to HIV primary care and/or specialty providers from MCO Definition of met need: • Having a form of health insurance; and/or • Having insurance to meet unmet need (e.g., MADAP) • Obtaining necessary referrals/assignment to HIV primary care and/or specialty providers from MCO	A. Was unmet need for health insurance identified in latest assessment? ☐ Yes ☐ No ▶ GO TO 5.3 ☐ No intake/assessment in chart ▶ GO TO 5.3 B. Was goal established in latest action plan to address need for health insurance? ☐ Yes ☐ No C. Is there documentation in chart relating to case management adherence activities performed to address the need for health insurance? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart D. Was the identified need for health insurance met? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart

5.3 **Housing** Definition of unmet need: • Being unstably housed; or • Living in shelter; SRO; doubled-up with friend/relative; hospital-nursing home-residential care facility and medically ready for discharge; or • Living in situation other than ones own house, apartment, supported living Definition of met need: • Being stably housed • Living in ones own house, apartment, supported living	A. Was unmet need for housing identified in latest assessment? ☐ Yes ☐ No ▶ GO TO 5.4 ☐ No intake/assessment in chart ▶ GO TO 5.4 B. Was goal established in latest action plan to address need for housing? ☐ Yes ☐ No ☐ No action plan in chart C. Is there documentation in chart relating to case management adherence activities performed to address the need for housing? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart D. Was the identified need for housing met? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart

5.4 **Primary Health Care Provider** Definition of unmet need: • Not being able to Identify a primary health care provider/agency from whom the patient can receive routine, non-emergent care related to HIV disease and other health care needs Definition of met need: • Being able to Identify a primary health care provider/agency from whom the patient has received routine, non-emergent care related to HIV disease and other health care needs • Being able to report current CD4 count, viral load, treatment regimen	A. Was unmet need for a primary health care provider identified in latest assessment? ☐ Yes ☐ No ▶ GO TO 5.5 ☐ No intake/assessment in chart ▶ GO TO 5.5 B. Was goal established in latest action plan to address need for primary health care provider? ☐ Yes ☐ No ☐ No action plan in chart C. Is there documentation in chart relating to case management adherence activities performed to address the need for primary health care provider? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart D. Was the identified need for primary health care provider met? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart

5.5 **Substance Abuse Treatment Services** Definition of unmet need: • Self reported drug and /or alcohol use and/or dependence during period before Intake • Use of Illicit drugs/prescription drugs known to cause dependence • Use of more drugs than intended • Presence of emotional/psychiatric problem associated with drug use Definition of met need • Having received professional substance abuse services or participating in a self-help group	A. Was unmet need for substance abuse treatment identified in latest assessment? ☐ Yes ☐ No ▶ GO TO 5.6 ☐ No intake/assessment in chart ▶ GO TO 5.6 B. Was goal established in latest action plan to address need for substance abuse treatment services? ☐ Yes ☐ No ☐ No action plan in chart C. Is there documentation in chart relating to case management adherence activities performed to address the need for substance abuse treatment services? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart D. Was the identified need for substance abuse treatment services met? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart

5.6 **Emotional Counseling** Definition of unmet need: • Self reported. Definition of met need: • Having seen a mental health provider, attended a support group, or seen a spiritual provider.	A. Was unmet need for emotional counseling identified in latest assessment? ☐ Yes ☐ No ▶ GO TO 5.7 ☐ No intake/assessment in chart ▶ GO TO 5.7 B. Was goal established in latest action plan to address need for emotional counseling? ☐ Yes ☐ No ☐ No action plan in chart C. Is there documentation in chart relating to case management adherence activities performed to address the need for emotional counseling? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart D. Was the identified need for emotional counseling met? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart

5.7 **Transportation/Health care-related** Definition of unmet need: • Self reported need for transportation to health care related appointments • History of missing health care related appointments due to lack of transportation to appointments Definition of met need: • Having transportation needs met; enabling compliance with health care related appointments.	A. Was unmet need for transportation/health care-related identified in latest assessment? ☐ Yes ☐ No ■ END OF CHART REVIEW ☐ No intake/assessment in chart ■ END OF CHART REVIEW B. Was goal established in most recent/latest action plan to address need for transportation/health care-related? ☐ Yes ☐ No ☐ No action plan in chart C. Is there documentation in chart relating to client advocacy activities performed to address the need for transportation/health care-related? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart D. Was the identified need for transportation/health care-related met? ☐ Yes ☐ No ☐ No progress notes or other documentation in chart

■ END OF CHART REVIEW

BCHD Quality Improvement Program
Primary Care: Co-morbidity Services
Agency Interview Tool

- Agency Name:
- Address:
- Person being Interviewed:
- Telephone:
- Fax:
- e-mail:

Goal of Co-morbidity Services

1. What Is the overall goal and Intent of co-morbidity services?

2. How do these services benefit the agency?

3. How do these services benefit the client?

Service Model

4. When were co-morbidity services first provided?

5. What staff positions are supported by Title I under the service category of co-morbidity?

6. What services are provided as part of Title I funded co-morbidity services:
   - ☐ Primary Care

☐ Mental Health
☐ Substance Abuse Treatment

7. Are these services provided on-site?
   ☐ Yes ☐ No

   ▸ If No, identify where services are provided.

8. Are the appointments co-scheduled?
   ☐ Yes ☐ No

9. How are co-morbidity services different from the service category of primary care, mental health and substance abuse treatment?

10. In terms of data reporting, how are these clients differentiated? Are the same clients reported for the Individual service category, e.g. mental health, as well as co-morbidity?

11. Are specific adherence strategies used as part of co-morbidity services?
    ☐ Yes ☐ No

    ▸ If Yes, Identify the strategies used:

12. Are outreach services provided as part of co-morbidity services?
    ☐ Yes ☐ No

    ▸ If Yes, Identify the focus of the outreach efforts:
      ☐ Identify and link HIV-positive consumers to care who are not currently In service
      ☐ Maintain clients In care over time
      ☐ Re-engage clients lost to follow-up

    ▸ If Yes, describe the outreach strategies used.

Population Targeted and Clients Served

13. Who Is eligible for co-morbidity services?

14. If patients are eligible for Medicaid, are they eligible for co-morbidity services?
☐ Yes ☐ No

15. How often Is eligibility re-assessed?

16. Are specific forms used to assess eligibility?
☐ Yes ☐ No

17. How do clients find out about the availability of co-morbidity services?

18. Are the homeless targeted for these services?
☐ Yes ☐ No

- If Yes, describe the specific efforts undertaken to reach this population.

19. What are the primary reasons clients are referred for co-morbidity services:

☐ A significant number of medical appointments have been missed
☐ Difficulty adhering to treatment regimen
☐ Patient lost to follow-up
☐ Presence of co-morbid conditions
☐ Other, specify:

20. How are clients referred for service?

☐ Internal referrals
- Medical personnel
- Case manager
- Outreach workers

- Other personnel, specify:

☐ External referrals
- Medical personnel
- Case manager
- Medicaid MCO case manager
- Outreach worker
- Other personnel, specify:

☐ Self-referral

21. Do clients know they have been enrolled In co-morbidity services? Do they consent for co-morbidity services?

22. At what point does a client cease to be counted as a "co-morbidity" client?

23. Are clients notified of this change In status?

24. Have written policies and procedures been established to define the length and type of service to be provided as part of co-morbidity services?

Care Coordination/Service Integration

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25. Describe the mechanisms for service Integration and care coordination.

26. Are regularly scheduled interdisciplinary meetings held?
☐ Yes ☐ No

▸ If No, skip to question 35.

27. Who schedules the meetings?

28. Are the meetings focused on the agency or the patient?

29. Who makes up the team?
- ☐ Case manager
- ☐ Physician
- ☐ Nurse
- ☐ Mental health therapist/counselor
- ☐ Substance abuse counselor
- ☐ Client advocate
- ☐ Peer counselor
- ☐ Pharmacist
- ☐ Child care provider
- ☐ Transportation provider
- ☐ Housing provider
- ☐ External staff
- ☐ Other, specify:

30. How frequently do the teams meet?
- ☐ At least once a week
- ☐ Once every two weeks
- ☐ Once every three weeks
- ☐ Once a month
- ☐ Longer than once a month

31. How frequently does each client have his/her case discussed at a meeting?
- ☐ At least once a week
- ☐ Once every two weeks
- ☐ Once every three weeks
- ☐ Once a month
- ☐ Once a quarter

☐ Once every six months
☐ Once a year

32. Are clients routinely asked to participate In the meetings?
☐ Yes ☐ No

33. Who Is responsible for documenting the team meetings?

34. Where does the documentation get placed?
☐ In the client record
- Where In the client record does the documentation get placed?

☐ In a binder with all team meeting notes
☐ Other, specify:

35. Given these two definitions, would you describe your team as being an Interdisciplinary or multidisciplinary team? (a definition will be provided for each word)
Multidisciplinary team:
Interdisciplinary team:

36. Who assumes primary responsibility for care coordination?

37. How does care coordination for co-morbidity services differ from traditional case management?

38. If clients are also receiving case management services, are they counted for each service category?
☐ Yes ☐ No

39. Who is responsible for making and tracking **internal** referrals for the client?
☐ Identified "care coordinator"
☐ Service provider/discipline providing the services

☐ Both
☐ Other, specify:

40. Who is responsible for making and tracking **external** referrals for the client?
    ☐ Identified "care coordinator"
    ☐ Service provider/discipline providing the services
    ☐ Both
    ☐ Other, specify:

41. How Is service Integration documented?
    ☐ Summary of team meetings placed in client record
        - Does each discipline make a notation about the meeting in the client record?
    ☐ Shared chart
    ☐ Shared treatment plan
    ☐ Service integration plan
    ☐ Patient/family meetings documented
    ☐ Inter-agency meetings documented
    ☐ Other, specify:

42. Are team members expected to review notes from other personnel? If so, how is the review documented?

43. Are formal policies and procedures established that clearly describe how integration of care is to be accomplished?
    ☐ Yes ☐ No

Program Evaluation

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44. How is the effectiveness of the program assessed?

45. Does the agency have an on-going quality improvement/quality assurance program that identifies areas for improvement within the co-morbidity service category and delineates subsequent actions taken?

☐ Yes ☐ No

46. What outcomes are measured and how do these differ from other service outcomes?

SERVICE CATEGORY: PRIMARY MEDICAL CARE[1]
SUB-CATEGORY: CO-MORBIDITY

ratified January 2001

Guidance for Providers
Seeking Funding for Special Co-morbidity Project

The demographics of Baltimore Eligible Metropolitan Area HIV/AIDS population shows major co-morbid issues. Of the respondents to the Client Survey over 26% report themselves as homeless. Fifteen percent report a mental health diagnosis in the past year. Over 1/3 of the HIV cases report active substance abuse in the past year. These co-morbid factors impact on the health care delivery system through missed appointments and failure to adhere to medical treatments. These factors, left untreated or not addressed may: reduce the life expectancy of the HIV positive individual, spread the HIV epidemic, and create major social problems. Service delivery systems that treat each co-morbid condition independently have been the norm in the HIV care system. This project is an effort to address the barriers that co-morbidity creates for clients in seeking and remaining in medical treatment and securing the other health and support services that are essential to the well being of the client.

Providers, seeking funding under the Sub-category: Co-morbidity, must establish a service program as described in the Summary of Special Project on Adherence. Standards for Primary Medical Care, Substance Abuse and Mental Health shall be used as service guidance for the provider agency/organizations and the staff delivering services. Special Co-morbidity Projects have specific forms for reporting client progress. Data from these forms will be used to evaluate the model for effectiveness. Final drafts of the forms will be included with the conditions of award.

[1] Beginning in Fiscal Year 1999, there are two service sub-categories: Adherence which is a sub-category under Case Management and Co-morbidity which is a sub-category of Primary Medical Care. Service providers may seek funds for Primary Medical Care alone, for Co-morbidity Project funds alone or by submitting an application for each, seek funding for both.

SERVICE CATEGORY: PRIMARY MEDICAL CARE
SUB-CATEGORY: CO-MORBIDITY

Special Project to Integrate Care for HIV Infected Clients with Co-morbidities of Substance Abuse, Mental Illness, and/or Homelessness

I. STATEMENT OF ISSUES AND TARGET GROUP

Provision of medical care for HIV infected clients with co-morbidities of substance abuse, chronic mental illness, and /or homelessness poses many challenges. Clients with these co-morbidities often have greater difficulty fully engaging in medical care and, thus, have poor medical adherence and are not considered good candidates for protease inhibitor therapy. Due to the fragmented structure of the traditional medical delivery system, these patients usually are required to seek services in several locations, further reducing adherence. HIV infected clients with co-morbidities of substance abuse, chronic mental illness, and/or homelessness are the target of this project.

II. GOAL OF PROJECT

The goal of the project is to improve quality of care by providing integrated care for this population of patients. Proposed programs should have integrated HIV primary medical care, substance abuse treatment and psychiatric and mental health services available on-site for patients. As well, care of these clients should be truly integrated and coordinated with a clearly delineated system to accomplish these goals. An outreach program should also be in place to identify new clients and to locate clients lost to follow-up.

III. LENGTH OF PROJECT AND SOURCE OF FUNDS

This project is intended to run one year and will be funded as a stand alone sub-category of Primary Medical Care. If this model proves successful, in future years special consideration may be given for program that offer this integrated care model.

IV. ELIGIBILITY

a. Only non-Medicaid eligible individuals
b. Clients with co-morbidities of substance abuse, chronic mental illness and/or homelessness

V. LOCATION OF PROJECT

This project may be located in a substance abuse treatment center, mental health facility or homeless service facility so long as these facilities offer primary medical care. A primary medical care facility must offer two or more services that treat the targeted co-morbid conditions to be eligible for this project.

VI. SERVICE MODEL[2]

The purpose of this project is to provide a model of integrated care. Thus, the minimal requirements are as follows:

[2] Organizations which already have one or more services available may apply to fund additional services in order to meet the requirements of the model for this project. All applications should clearly detail all the required services that will be available for clients, even if monies are only requested for complementary services.

a. HIV primary medical care, substance abuse treatment, mental health services and/or homeless services must be available on site.
b. Care for clients must be integrated. Mechanisms for the integration of care must be explicitly described. It is strongly suggested that regularly scheduled interdisciplinary team meetings be one mechanism for integrated care.
c. Coordination of care and the mechanism for care coordination must be explicitly described.
d. Coordination of care may be facilitated by a Professional Case Manager or other designated, qualified care coordinator.
e. Outreach component is required. This component should include services to HIV infected individuals not currently receiving medical services as well and outreach to clients who are lost to follow-up.

Budget: Amount needed to add a complementary service up to $250,000, the full allocation amount.

VII. REPORTING

A co-morbidity reporting form (see attached Adherence Reporting Form) similar to the attached form will be created for reporting client progress. This form will be completed for each client on entry into the program, for all clients at the mid-term of the project and for all clients at the close of the project.